



Knowing

Welcome to theory of knowledge

For many years already, you have lived in the world with your own range of experiences. Already, you believe many things about yourself, the way the world works, and the values that should guide life. But why do you hold these beliefs? And why do others often hold different ones?

Welcome to a journey into thinking which, we hope, will intrigue you. If you bring to it a mind that is alive to questions and open to exploring possible answers, this course has the potential to give you a way of approaching issues of knowledge that will benefit your thinking for the rest of your life.

Theory of knowledge, binding together the classroom education of your Diploma Programme subjects and the experiential education of creativity, action, and service, offers you a chance to reflect with others on the whole of your International Baccalaureate Diploma, its approach to learning and knowing, and its place in your more complete life as a “knower”. It offers you a chance to look at how beliefs and knowledge fit together not just for you but for others. Take hold of this chance you’ve been given. Prepare yourself to think critically but not disrespectfully, to share your thoughts and listen well to others, and to consider with your class group the ways we come to know things in all areas of our lives.

Who’s in the centre?

Being “critical” is sometimes interpreted as passing negative judgments. In TOK as in thoughtful public discussion, however, engaging your mind to ask questions does not presuppose rejection of the answers, and being critical does not imply looking only for faults. Examining and evaluating are thoughtful, reflective activities which recognize uncertainties and differing points of view while at the same time appreciating knowledge as an achievement. Examining and evaluating allow us to sift the ideas we have been given in order to affirm the ones with the best claim on our belief, by considering the reasons that support different claims.

Before this course is over, we will invite you to apply critical thinking to how we know anything at all, with particular attention to sense perception, emotion, language, and reasoning. We will ask you to assess what we consider knowledge to be and how we approach finding truth and recognizing deception. We will ask you to examine major areas of knowledge to see their bases, to compare them for a more holistic picture of knowing, and to consider the responsibilities that knowledge may bring in the world. Finally, we will give you support toward demonstrating your TOK skills most effectively for assessment for the course. Questioning and thinking critically, with appreciation of variability and complexity, will carry you through theory of knowledge and, we hope, beyond.

If you are to gain tools in this course for effective critical reflection on the claims of others, however, you need also to develop your awareness of yourself. Our own backgrounds affect how we do the sifting and examining, often without our being aware of their influence—to the point that it may be much easier to question new ideas given to us than to be aware of those we already have and the way that they interact with the new. Let us start, then, with the place where you stand, and your viewpoint on the world.

Who is the “international student”? Isn’t it *you*?

Consider for a moment what it means to be an “international student”. Does it mean that you come from a particular part of the world, or do not come from a particular part of the world? Or does it mean that you are taking courses in a diploma such as the IB Diploma Programme, which encourages intercultural understanding? Or does it suggest something about your own attitude, your own interest in learning about the viewpoints of others who differ from yourself in any number of ways?

Each one of us has a way of living and a worldview that is familiar to ourselves but possibly strange to someone else. If you live and go to school with others much like yourself, you may not have the incentive to put your own worldview in the context of others. Yet, no less than others from faraway places, you carry a perspective you may wish to try to identify and understand, and to frame with awareness of other cultural possibilities.

Take a few minutes now to write quietly, trying to pick out from your own background features that probably affect what you know, how you know it, and what your attitude is toward knowledge. You may wish to keep your thoughts private for further reflection and expansion during the course. If you are comfortable in sharing some of your “profile” with the rest of your group, however, it could act as an introduction of yourself as a knower.



Tomas Jagelka,
Slovak Republic



Claire Boychuk,
Canada

Personal profile as a knower

- 1 How old are you? How might your age affect both what you know and your attitude toward gaining knowledge?
- 2 What is your mother tongue? What other languages do you speak? How might your particular languages affect your knowledge?
- 3 What sex are you? Does your gender role affect how you see the world and what expectations you have about your knowledge and education?
- 4 Are you urban or rural? How might living in a city or living in the countryside affect how you have learned and what you know?
- 5 What is your spiritual worldview? How do you think that your following a particular religion, or not doing so, affects your knowledge?
- 6 What other aspects of your background belong here? The questions so far have just been guides, opening thoughts to which you can readily add.



Shattera Redd, USA

Ahmad Sahray,
AfghanistanClare Ogilvy, New
Zealand

Leo Anzagira, Ghana

Mohamed Sehwal,
PalestineLkhagvajargal
Yondonjamts, Mongolia

*“Me? I’m ordinary, but
they’re international.”*

*“No, I’m the one who’s
ordinary. He’s the one who’s
international. And she’s
downright exotic.”*

The students here have completed their own theory of knowledge course. They and their classmates will be adding their “international” voices to your own in discussions throughout the book to contribute an extra perspective or to stir further ideas.

PLEASE DO NOT READ THE BOX BELOW. NOT YET.

First, please make sure you have a sheet of blank paper and a pen or dark pencil. Write your name and nationality clearly at the top of the paper. When your whole class is ready, read and follow the instructions. May your journey begin!

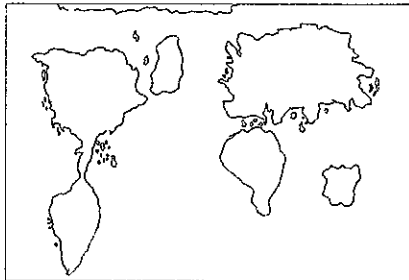
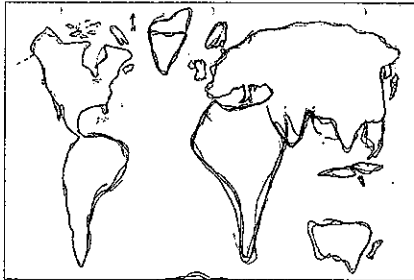
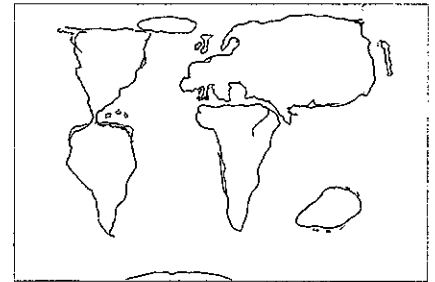
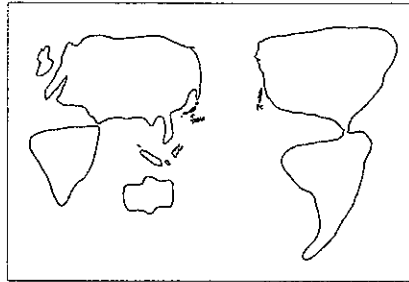
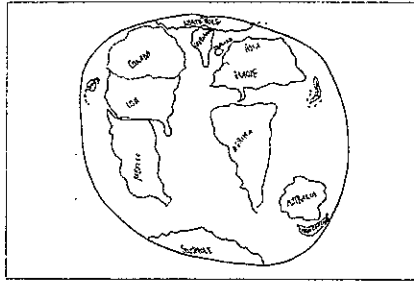
You have seven minutes in which to draw, as accurately and completely as you can, a map of the world.
Don't waste time telling yourself that you can't. Just do your best and discover what you carry (or don't carry) in your mind as your picture of the world. You will not be marked or otherwise judged on the accuracy of the results.
When you have finished, be prepared to show the results to others in your class.

Your own maps

Look at your own map and the drawings of your classmates. If they are quite different from each other, can you suggest reasons? If they are quite similar to each other, can you suggest reasons? As an international student, with other international students in your class, you show in your drawing some of your own perspective on the world.

- What part of the world is in the centre of your map?
- What parts of the world have you drawn in greatest detail? What parts of the world have you drawn in little detail or even left out?

- The maps on this page were drawn by students from: Japan, Greenland, Italy, Costa Rica, and Canada. Can you match the most likely map with each student?



The maps of cartographers

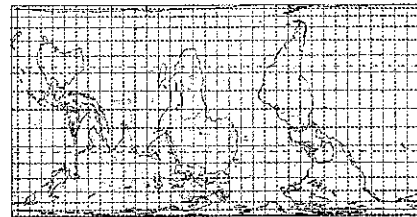
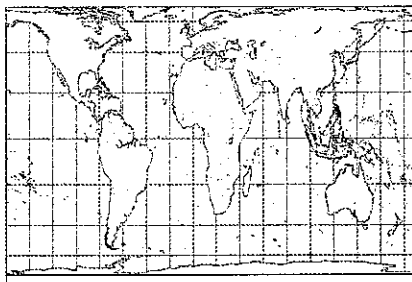
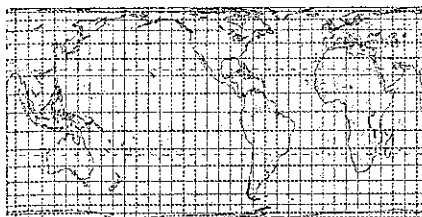
It is understandable that student maps sketched from memory will vary. However, shouldn't the maps made by professional cartographers give a correct version of the world?

There's a problem. It is impossible to make an entirely accurate map of the world. Shrinking the whole world to a page means that so much is left out and so much is made tiny at such a large scale that the map represents the ground at a very, very high level of overall generalization.

It is also impossible to show a sphere on a flat surface without warping and distorting it. Imagine peeling an orange or other globular fruit. The peel removed simply does not lie flat. What solutions do cartographers find to this problem? They use different projections to peel the earth in different ways, each way stretching and warping the "peel" differently. Look at the results on the next page. Which world map is most familiar to you? Does the familiar one seem "right"? Do any of the maps seem "wrong"?

So, what choices have the mapmakers made in each of the versions opposite? Supplement these small images, if you can, with full-sized wall maps or images on the Internet.

- *What is selected to be shown?* Do human beings have a greater interest, in general, in the land or in the water? Do our maps show the bias of our species? Do the maps represent the physical geography of the world or its human political divisions?
- *What is emphasized in each case?* What is in the centre—or both in the centre and at the top? What is artificially enlarged by the particular projection chosen? Compare the other maps to the Peters equal area projection, which chooses to distort shapes in order to preserve correct relative size.



- Which map features are found in the world and which ones are humanly created? Do lines of latitude and longitude “really” exist? Do national borders exist in the world if seen from space? Do north, south, east, and west exist in nature? How do north and south differ in this way from east and west? Does north have to be at the top? How do we separate west from east, since all points are west of something and east of something else? What political and economic ideas come with “north” and “south”, “east” and “west”?
- In what context and how are the map images used? Maps are made, in general, for a practical purpose, whether to show relative position, to navigate, or to represent a connection between the physical world and an idea (population growth, spread of AIDS, incidence of hunger, distribution of the world’s languages or religions, and so forth). But how is the map used?

For example, the Mercator map, devised originally by Mercator in Germany in 1569 as a mariner’s map, has become almost an icon of Eurocentric thinking because of the ways that it was adopted by colonial powers and spread by them. South America is actually almost double the size of Europe, but Europe appears larger. India is roughly three times the size of Scandinavia, but Scandinavia appears larger. The southern hemisphere is squashed into one third of the map’s surface, while the northern hemisphere takes up two thirds. It is a view of Europe top, centre, dominant. Most Europeans would have been, and perhaps still are, unaware of the bias in their familiar image of their world.

What’s in the middle when west and east are just relative directions on a spinning globe?

Toi Yam Karyn Wong, China

In Chinese the name for China is “Middle Kingdom.” Historically we thought of ourselves in the centre of the world. We didn’t actually need anyone else. You can see the idea of “middle” in the first character of the name.

中国



How many continents are there?

Adam Spooner, England

There are seven continents – Antarctica, North America, South America, Europe, Asia, Africa, and Australasia (or Oceania). This is what I learned in school and all continent maps colour these seven differently.

The division of North and South America is just common sense. They have completely different histories as they were colonized differently. The Panama Canal divides them, though it does leave



Central America in a rather grey zone.

Europe and Asia are different continents, divided along the Ural Mountains and the Black and Bosphorus Seas. I learned that Istanbul (or Constantinople) was seen historically as the gateway to Asia and the last step of what was known. This vision was tied to the idea of the Roman Empire as the civilized world.

I can see now the inconsistencies in division of continents, in that some have a geographical justification and some have a political or historical justification.

Giorgina Alfonso Rodriguez, Uruguay

North America, Central America, and South America – they are all one continent. They are naturally joined together. The Panama Canal was man-made. If it's more than one, it has to be three if you are dividing geographically, to recognize Central America. How can some Europeans



say that it's two continents and call Europe, which is joined to Asia, a continent?

I think that when some people divide America, they are thinking about culture and not the land at all. When they talk about North America, they're really talking only about Canada and the United States.



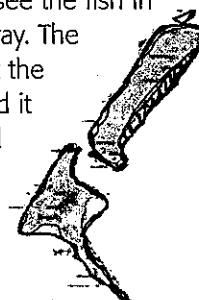
Does north have to be at the top? What is "up" on a globe in space?

Ruakiri Fairhill, New Zealand

Our Maori map always puts the south at the top because the map is actually a picture of the creation of the islands of New Zealand. The name of the south island, *Te waka-a-Maui*, means "Maui's canoe" and the name of the north island, *Te ika-a-Maui*, means "Maui's fish." In the story, Maui, our god ancestor, had travelled from faraway islands with his four brothers. His canoe hit a rock (Rakiura, Stewart Island) and got stuck. It never moved again and became the south island. There the brothers decided to go fishing, sensing that there was something big under the sea. Maui hooked a giant fish and dragged it to the surface. His brothers jumped on it and killed it with their oars. It turned to stone and



became the north island. You can see the fish in the shape of the island. It's a stingray. The map has to put the fish's mouth at the top because that's how Maui pulled it out of the water. Besides, the head has to be at the top because it's the most significant part of the body – it's the first part the sun sees, it's the first part that you see when someone appears over a hill, and it's the part that holds all knowledge. Our picture of the islands as the canoe and the fish is part of our everyday speech in Maori. I live on the north island, and my region is referred to as "the fish's stomach." If I go to the south island, I'd say, "I'm going up to the canoe." And we refer to Wellington as "the fish's mouth."



Some reflections on maps as knowledge, and knowledge as a map

"Oops, I forgot that bit that sticks down in the Far East!" remarked a student from Europe (from which the East is Far) as she examined the map she had just drawn. As we dredge up from

memory our pictures of the world and attempt to draw them, we are obviously doing so as individuals with differing past attention to geography, differing memories, and differing drawing skills. At the same time as we are individuals, though, we are also members of our own social groups in our own home spot on the planet. The students who call the Far East “home” are not likely to forget, accidentally, the Southeast Asian peninsula—though they might not remember all the bumps of Europe. Our pictures of the world, and our knowledge of the world, are learned within our own contexts and our own cultural worldviews.

Our maps, often beautiful and enticing, are images not just of our planet but the way that we think about it. As we flatten planet Earth for viewing, we choose a particular projection (with its influence on shape and size), up/down orientation, and centring. We overlay the image with conceptual schemes that cannot be seen in nature: the grid lines, borders, colours, and names. These precious images, which pack so much knowledge onto a small surface, are a product of our history, our technological skill, and our politics. It is strange to think that, aside from recent astronauts, none of us through all of history has ever seen the whole Earth with our own eyes. It is stranger still that the astronauts could not see what is so often most important to us about the surface of our planet—the ideas that we tie to it. We link the Earth with ideas of time (zones), economics (developed/developing world), and culture (for example, the west/the east). We link ourselves to it with ideas of belonging to certain places and not to others. And, sometimes with grim consequences, we link it with ownership (borders and names).

Knowledge is power, it has often been said, and map knowledge stands as a graphic example. As an idea-tool, maps have long been used for controlling empire; map knowledge was once the knowledge of rulers. With a map, colonizing nations have laid claim to territory, dispossessing or killing indigenous people who had no concept of “ownership” of their homeland, no deeds of possession, no flags. With a map, colonial powers carved up their territorial possessions from a distance, imposing borders and ownership that created on the ground a reality with vast consequences. With a map, technologically advanced nations drop bombs on targets without their people ever having to see the faces of the people exploded by the blast. Maps are at the heart of many of the fierce conflicts of the world, representations not only of the land but of all the ideas tied to it; maps represent not what we see but what we believe.

Yet a map is an idea-tool that, in itself, is neutral. Although it can be used for conquest, it can also be used for learning and appreciation. Is it wrong to put ourselves in the centre of our own maps of the world? Surely not. Surely we learn in part by reaching out from our own centres of self and family and society and job and religion and political affiliation, to meet others reaching out from theirs. Imaginatively entering a different vision of the world that is “off centre” or “upside down” according to our own conventions and beliefs can bring an exciting jolt of realization of other possibilities. Familiarity with other centres can refresh us as we come to place

Follow-up activity

Can you find your own part of the world on maps using different projections, such as conical, cylindrical, and single-centred?

our own "centre" within a larger context of many centres, with the new multi-centred version illuminating things we never noticed about our own. "I never knew Africa was so big," commented an African student from a former European colony, realizing for the first time that the map on his classroom wall had exaggerated the size of Europe. "I didn't know that India's map of Kashmir wasn't everyone's," acknowledged a student from India, and painfully recognized at least the existence of alternative political claims.

Does appreciation of others' maps, though, mean that all maps are equally right? Yes, if all we ask the map to do is to represent our worldview or be useful for a practical purpose. However, as soon as we expect the map's picture of the world to correspond to how the world really is, we will have to recognize that some images are better than others—better, as a picture of the world outside our minds. If a version leaves out (or invents) an entire continent, it is faulty. If a version changes sizes of land masses in a way inconsistent with its projection, it is faulty. If a version imposes borders that are not accepted by the world community, it may be harder to declare it faulty but we still have political criteria for doing so. Our picture of the world needs to be checked against the world itself.

Here is one of the major challenges for all of us, human beings building our understanding of ourselves and our world. So many different representations surround us. How can we simultaneously appreciate the variability of worldviews, and at the same time insist on some standard of accurate representation with which to evaluate them all? How do we deal with worldviews that clash? In attempting to understand, evaluate, reject, or reconcile multiple views, we are taking on possibly the most interesting and significant challenge of living in an international, intercultural world.

Gaining our maps

We have numerous sources for our knowledge. Our families, friends, and classmates, books, television, and the Internet, sports coaches, political leaders, religious teachers—these are just some of the influences upon us, giving us information, skills, and views of the world and our place in it. From all the ideas we absorb, combined with all our personal experiences, we shape our own beliefs and our own knowledge.

One of the major influences on almost all of us is the educational systems within which we have been taught. Those systems have been created by people who were entrusted to decide what is most important for us to know and how best we can learn it. Each educational system reflects the values of the community of knowers who authored it, and is embedded in the values of the larger society. Hardly surprisingly, what is taught in schools today is rather different from the curriculum in schools two hundred years ago as knowledge changes and so do the priorities of societies.

Let us have a quick look at the educational systems you were exposed to before you started the Diploma Programme to try to identify not only what subjects you were taught but also some of the cultural values that accompanied your knowledge. The responses to

these questions are quite variable from one part of the world to another.

Gaining knowledge in the context of values:

Your school system

- 1 What was included in your schooling? What subjects were you taught, and why do you think these ones were judged to be the important ones for you to know? Were any of the following included in your schooling: politics, religious instruction, military training, gardening, cooking, or sports?
- 2 What value seemed to be placed on the subjects in your school? Were some subjects considered to be superior, or to be the ones to which the best students should give their attention? If so, why do you think these subjects were most valued? How was the attitude toward them conveyed?
- 3 Compared with the six subjects of your Diploma Programme and their balance, did your school system encourage greater or less specialization in particular areas of knowledge?
- 4 What was considered by the school system to be proper behaviour toward teachers and other figures in authority? To what extent did it include appropriate dress, manner of speaking, and body language? What values lay behind the expectations?
- 5 What measures were used by school authorities to deal with behaviour considered inappropriate? What attitudes toward social regulation and punishment seem to lie behind these choices?
- 6 To what extent was your school system competitive to gain good marks? Were good marks important to students or their families? Were they made public and rewarded?
- 7 To what extent did the values of the teachers, students, and their families seem to be in harmony regarding education in general, subjects studied, marks, and appropriate behaviour?
- 8 In sum, how would you describe a "good student" in the context of your own school system? The students pictured here are speaking from their personal impressions of their cultural backgrounds and do not claim to be experts on culture or education. How would you, also not as an expert but as a student who has experienced years of education, express your impression of what it is to be a "good student"? What values emerge?

Synnøve Paulen, Norway

In Norway, you are supposed to respect your teachers, even though you talk to them in a familiar way.

At one time teachers were big authorities, but now they are respected instead of maybe feared. A good teacher listens to the students and respects their points of view, even if they are different from his/her own.

The ability to work together is also highly valued, and we do a lot of projects in groups. I would also mention the appreciation of the independent individual, who can gain knowledge and understanding on his/her own.



Rie Endo, Japan

In Japan, the modest and obedient student is "good". Let me describe the behavior of a good student. Sit down on the chair, put the hands on the thigh (male way, female way), look at the teachers' faces and listen to them carefully with shining eyes.

And you should keep quiet during the classes until the teacher asks you a question.

The good student studies very hard after school and gets high scores in the exams. And the good student would hardly complain about anything especially about their teacher or school. They believe in respecting what their teachers say and try hard to understand more from the teachers.



Halimatou Bachir Abdou, Niger

In Niger in rural societies (in the village, for example) most parents don't like to send their children to school because they want them to stay at home and work in the kitchen or on the farm. But in urban areas, people send their children to school because they want them to receive a good, modern education so that they will have more luck to have a job later.



Education in the context of values:

Your IB Diploma Programme

One of the contributors to your current knowledge is, of course, the International Baccalaureate Organization. As an educational organization with consciously developed and articulated goals, it publicly asserts its goal in education on its website and in its publications.

The International Baccalaureate Organization aims to develop inquiring, knowledgeable, and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the IBO works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right.

Read the above mission statement closely. The IB, like other educational systems, has choices to make about what is taught and how it is taught. What is the important knowledge that students should gain? Why is it considered important?

We will be discussing “values” in detail later in the TOK course, but for now pick out what seem to you to be the major ideals of the International Baccalaureate. To what extent and in what ways do you think your Diploma Programme subjects and CAS contribute to the fulfilment of these ideals?

Your own growing knowledge

Pause for a moment to think about your changing, growing knowledge. What, for you, is the contribution of formal education? To what extent do others, in school or in other parts of your life, guide your learning? To what extent are you the one who guides the directions in which your knowledge will develop? Are you the one who is responsible for your own knowledge, as well as for the actions that you take based on what you know or don't know? Going a step further, to what extent is ignorance a good excuse for acting or not acting in a certain way? These are questions that will recur later in the TOK course.

International — or internationally minded?

Who is “domestic” and who is “international” is clearly as relative as east and west and as affected by where you are standing yourself. Your recognition of differing perspectives from different geographical centres is only the beginning in TOK and a step toward a larger goal of trying to become, if you choose, not just “international” (as is everyone, from someone else's point of view) but “internationally minded”.

Yet where you stand and what perspective you take is not, evidently, simply a matter of geography. When you identified your own personal characteristics within your profile as a knower at the

Farhanaz Majedi, Afghanistan



If you are educated you can help your country develop. You can tell other people the value of education and teach them that girls are equal. When I was 11 my father took us out of Afghanistan because he wanted his daughters to get an education too, but in the refugee camp in Pakistan he couldn't work. To earn money my brothers and I worked at making carpets for 10 or 11 hours a day. We went to school for 3 hours and I studied a lot to learn English and French. That's why I was able to get into a good school when we went back to Afghanistan. There were 50 to 70 students in the class, but we had desks and books.

beginning of this chapter, you were giving a description of your own “centre”, and acknowledging the different groups—the different communities of knowers—with whom you share elements of your vision. In growing more aware of your own perspective and understanding it as one possibility among many, you become more internationally minded without needing ever to travel from your home.

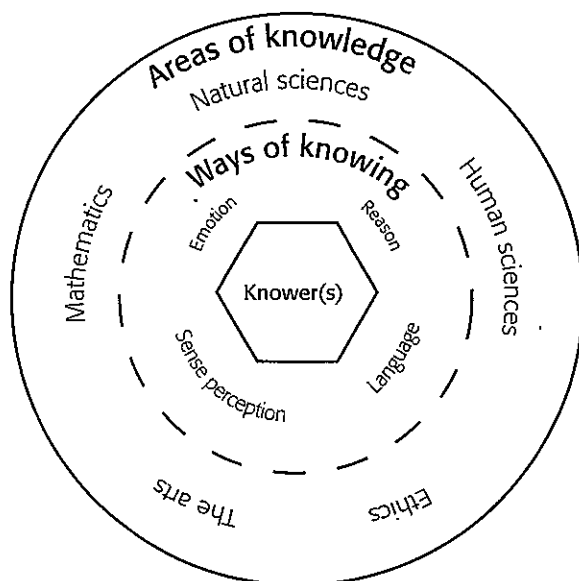
Developing in yourself a spirit of inquiry, an openness to views other than your own, and a capacity to think critically and communicate effectively is significant for your place in a world where people live in different ways and hold different beliefs. Being internationally minded may be equally enriching, however, for your place in your own community—including your own TOK class.

Who's in the centre?

In many ways, it is you who are at the centre of your knowledge—you who are shaping your understanding from all that you have experienced directly or been given by others. Yet you are not alone as you stand in one place on the planet and take your view of the world. Others have guided you, and others share many of your views.

In the diagram here of the TOK course, the traditional one in the IB subject guide, the knower(s) in the centre are both singular and plural. Take a close look at the diagram and think of what we have discussed so far. To how many communities of knowers do you consider yourself to belong? At the end of this course, please return to this page and ask yourself the same question.

If there are major figures in your life who have given you knowledge that you value—or have supportively helped you to gain it yourself—you might wish to send them an appreciative thought.



Traditional theory of knowledge diagram.